

# Structures and Standards for Bibliographic Data

Library of Congress  
Working Group on the Future of Bibliographic Control

**American Library Association, Chicago, IL  
May 9, 2007**

Jane Greenberg, Associate Professor and  
Director, SILS Metadata Research Center <MRC>  
School of Information and Library Science  
University of North Carolina at Chapel Hill  
[janeg@ils.unc.edu](mailto:janeg@ils.unc.edu)

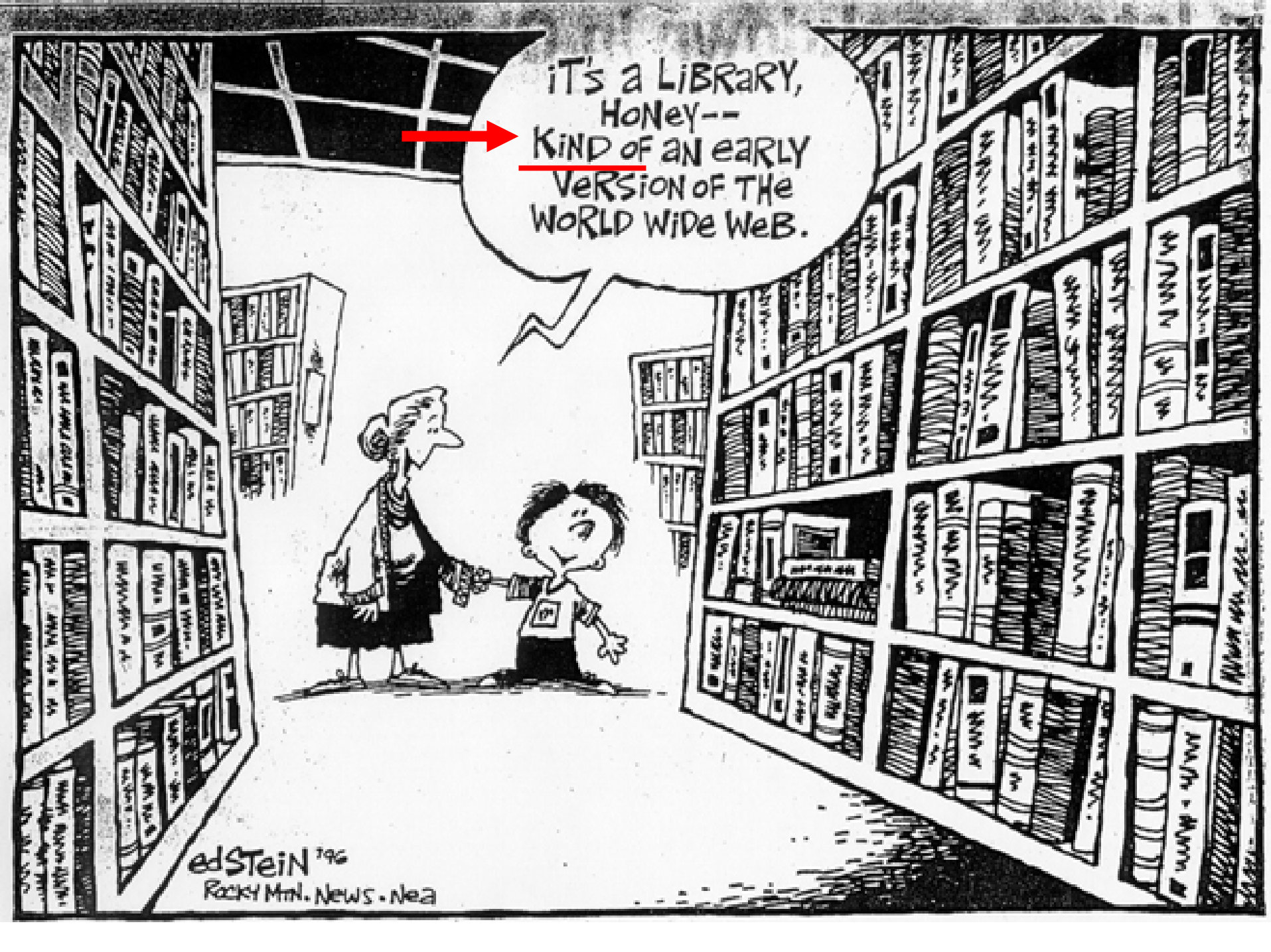
# Overview

- Comic relief
- Standards and structures
  - ▲ “standards” landscape and challenges
- Working group questions
- More questions
- Conclusions



It gets  
messy;  
and...

*"Never, ever, think outside the box."*



IT'S A LIBRARY,  
HONEY--  
KIND OF AN EARLY  
VERSION OF THE  
WORLD WIDE WEB.

edStein 1996

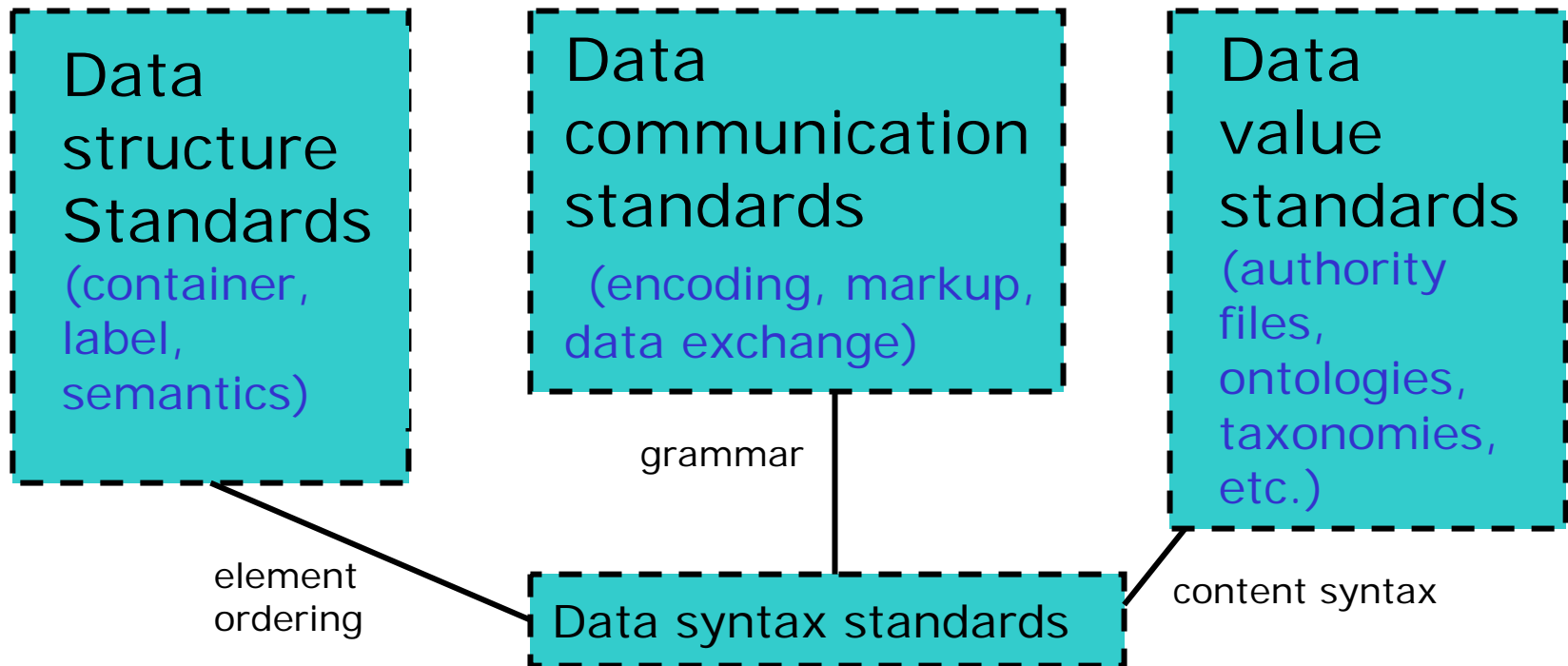
Rocky Mtn. News • Nea

# "Standards" /structures

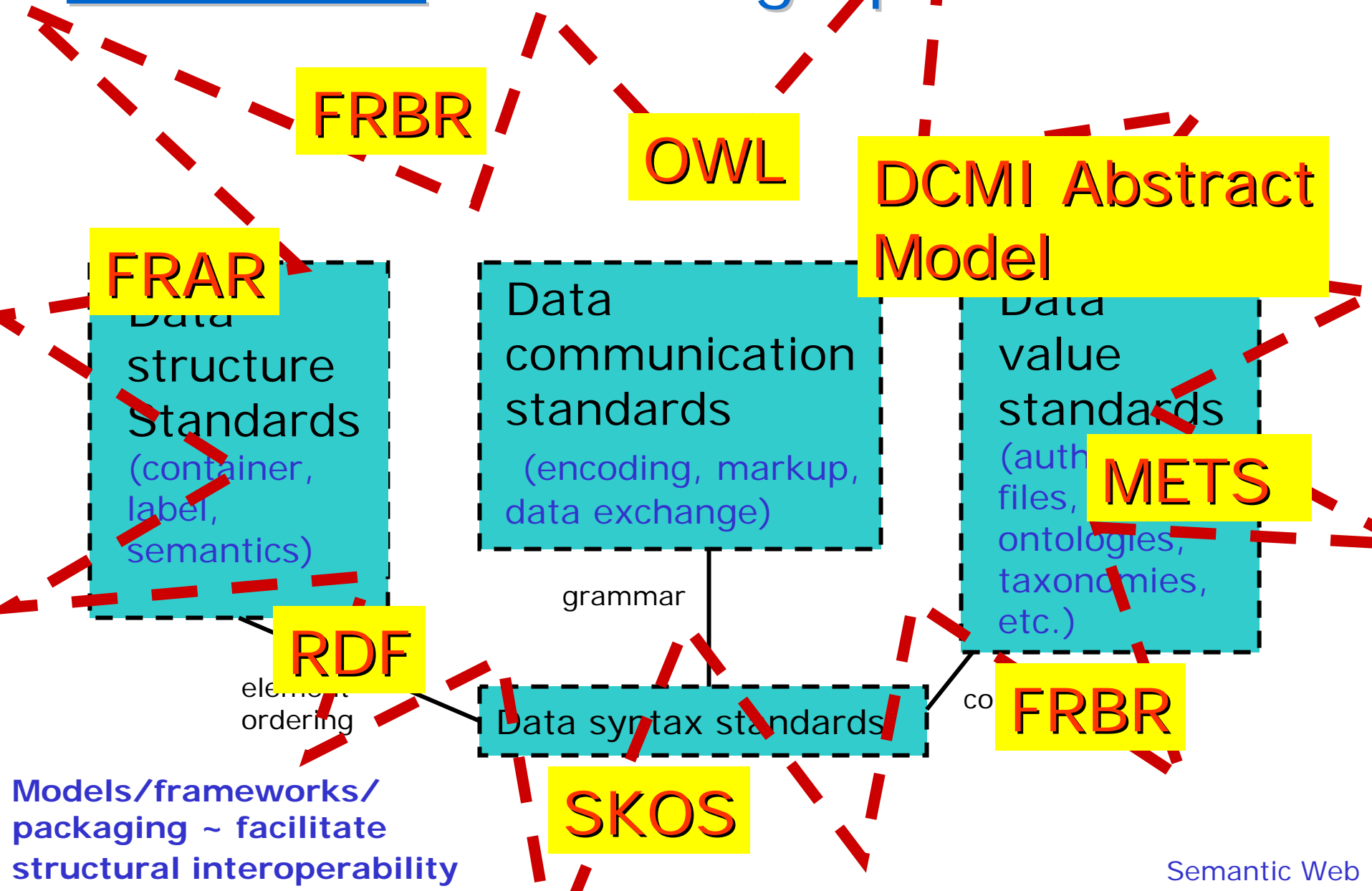
- Conceptual map



# Standards for bibliographic control



# Structures for bibliographic control



# "Standards"

(We use encode and package bibliographic data)

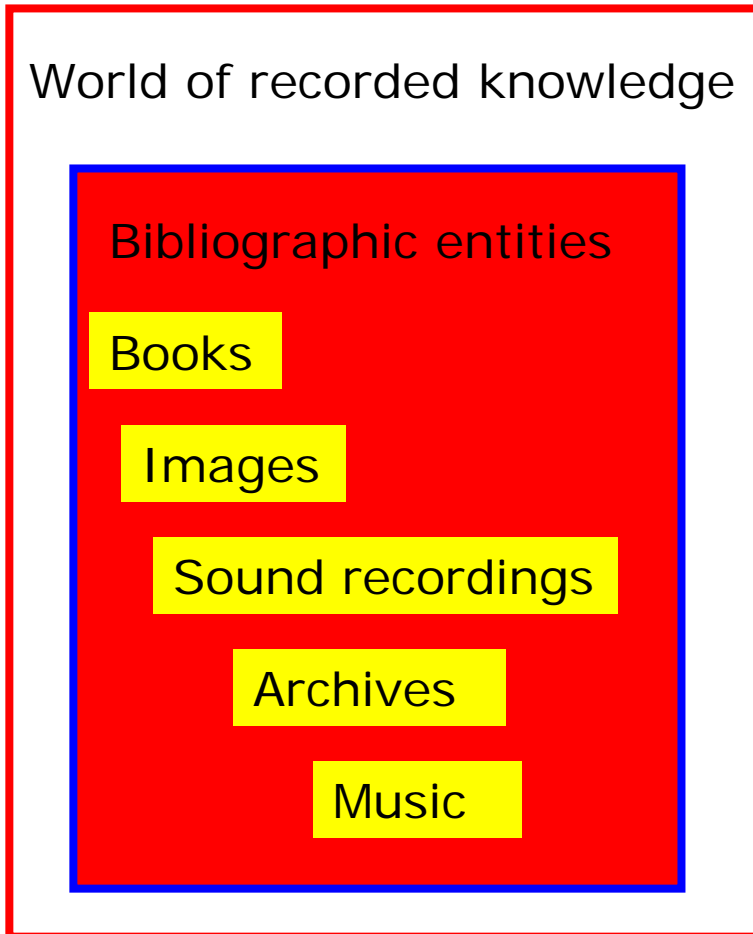
- Agreed upon statements to control action or product
  - ▲ Professional consensus/best practice
    - Knowledgeable practitioners, thinkers, leaders
- Why?
  - ▲ Highly technical culture,
  - ▲ **Need** for smooth operation
- Intimidating
  - ▲ Overwhelming, inflexible, vary in scope/complexity,
- Political, emotional



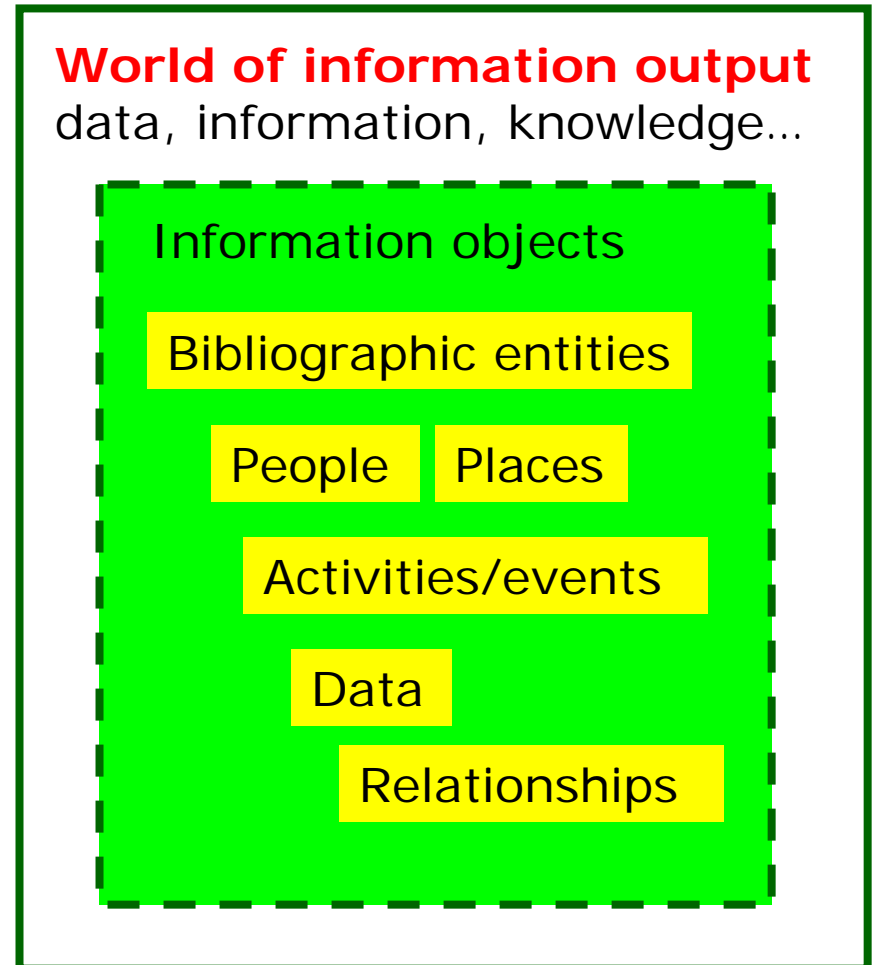


# Bibliographic universe ≈??

## Traditional



## Evolved/evolving+



# Working group questions



UNC

SCHOOL OF INFORMATION  
AND LIBRARY SCIENCE

Metadata Research Center <MRC>

# *Classification* of questions addressing bibliographic control “standards”

- 
- Need
  - Use
  - Development
  - New applications
- 



# Need

## ■ What kinds of "standards" are needed?

### ▲ All kinds of standards

- Depends on functions, users, information objects...continuum

### ▲ *What standards in which context?*

- Dublin Core: Major health study, consumer health?
- *übermodell!*

## ■ Are our "standards" adequate?

- ▲ **Yes** – good work, nothing better (evolutionary biology CV/SKOS), application profiles (DCMI)
- ▲ **No** – still developing standards



# Use

- How can we make better use of current standards?
  - ▲ Easily accessible, sharable
    - W3C thesaurus links ([http://www.w3.org/2001/sw/Europe/reports/thes/thes\\_links.html](http://www.w3.org/2001/sw/Europe/reports/thes/thes_links.html))
    - Open standards: XML, MARC-XML, SKOS, etc.
    - Registries: NSDL Registry/Sandbox  
(<http://beta.metadataregistry.org/about.html?symfony=3916535450f37b295d48d12c7d66046d>) →
    - Harper and Tillett's chapter in *Knitting the Semantic Web* (2007), *spread the joy!!*
- How can we take advantage rich legacy data?
  - Covert to open an interoperable standards, xml..
  - Do not dumb down where things work! / **ROI**
    - PCC, Dublin Core / **stream lining**

# NSDL Registry~

*a model for access to standards*

**The Registry Project - Microsoft Internet Explorer**

File Edit View Favorites Tools Help

Back Forward Stop Reload Home Address <http://beta.metadataregistry.org>

## NSDLREGISTRY

Supporting Metadata Interoperability

Showing Animals that fly

**Detail** Concepts History Versions

**Metadata**

**Detail**

Owner:	<a href="#">Sarah Currier</a>
<b>Name:</b>	Animals that fly
URL:	<a href="http://www.animalthatfly.org">http://www.animalthatfly.org</a>
Note:	A non-existent vocabulary
Community:	For the community that disagrees with taxonom

**URI**

<b>Base Domain:</b>	<a href="http://metadataregistry.org/uri/">http://metadataregistry.org/uri/</a>
<b>Token:</b>	animalsThatFly
<b>URI:</b>	<a href="http://metadataregistry.org/uri/animalsThatFly">http://metadataregistry.org/uri/animalsThatFly</a>

**Users**

Name	Administrator	Maintainer	Registrar
<a href="#">SarahCurrier</a>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

list Get RDF Get XML Schema

# Development

- What communities need to have input?
  - ▲ All communities, open forum
  - ▲ Leadership from the library community
    - Society's chief information custodian..; close the Semantic Web/library gap (Greenberg, 2007)
    - AMeGA report, functionalities  
([http://www.loc.gov/catdir/bibcontrol/lc\\_amega\\_final\\_report.pdf](http://www.loc.gov/catdir/bibcontrol/lc_amega_final_report.pdf))  
(Greenberg, et al, 2005)
- What organizations and organizational structures...?
  - Standards making organizations (NISO, W3C, etc.), and professional associations/committees charged with reviewing/ratifying standards
  - Organizational structure... don't know...streamline?

# New applications

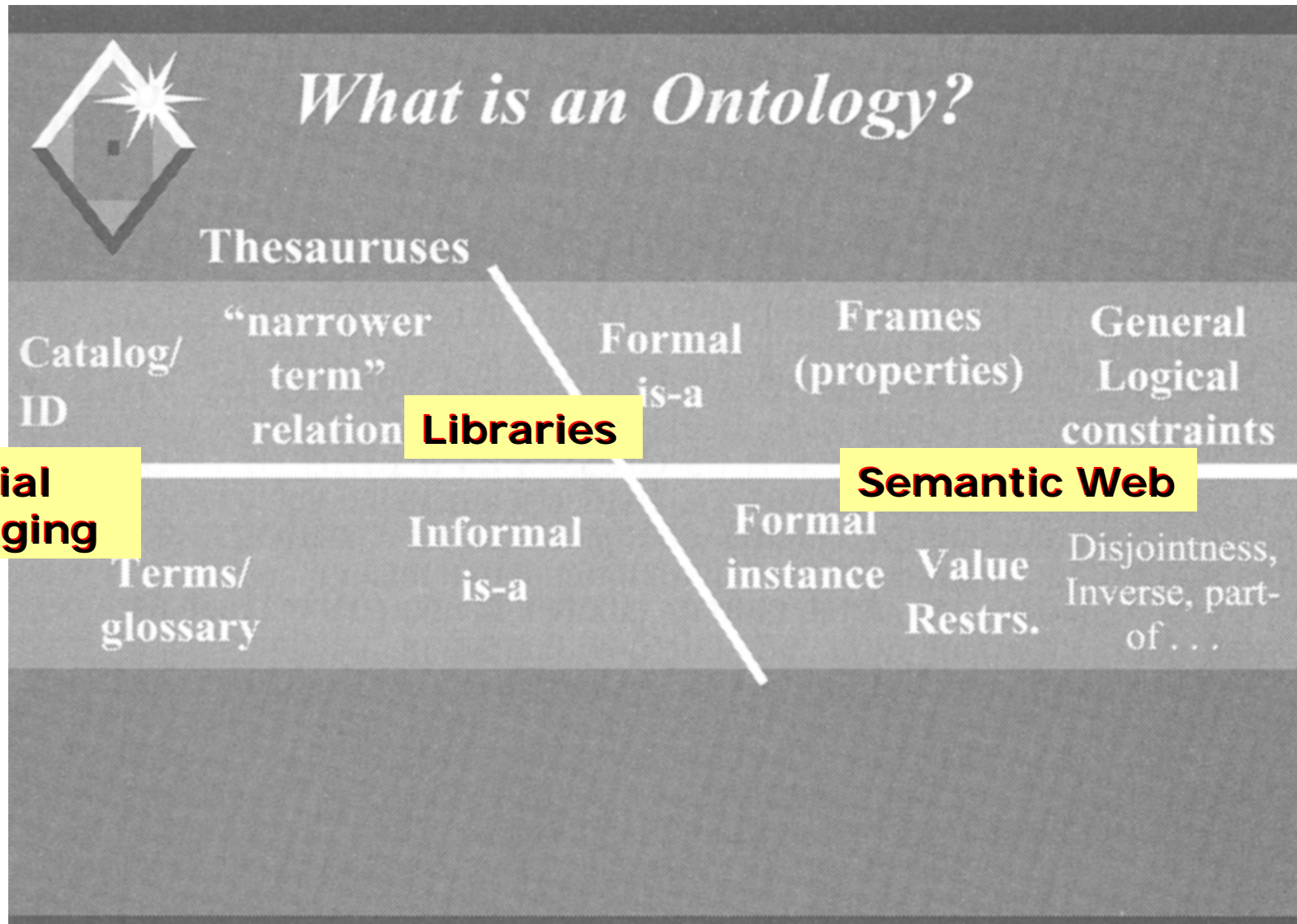
- What is the relationship between traditional bibliographic control practices, the Semantic Web, and social tagging?
  - ▲ A continuum, one that can be taken advantage of... →
    - Harness the bibliographic activity of everyone
    - Librarian/cataloger's role is evolving to not only create bibliographic data, but to promote good bibliographic practices, extend the use of standards





# Ontology Continuum

(in *Spinning the Semantic Web*, McGuinness, 2003)



# New applications

- What standards requirements are becoming evident due to new emphases

- Data integration, sharing/reuse different data flows
- Preservation metadata, contextual metadata, tracking the life-cycle of an object
  - Digital life-cycle management
    - Born digital/scan → ingest/accession → describe → access/use → track/maintain → de-accession (accordingly)
  - Integrity, authenticity, use/reuse...



# My questions



UNC  
SCHOOL OF INFORMATION  
AND LIBRARY SCIENCE

Metadata Research Center <MRC>

# My questions



1. What structures/standards are needed in which contexts?
  - Will FRBR work for institutional repositories?
  - Should we pushing for CVs in social networks?
  - *übermodell!*
2. Which data creation methods should be used?
  - People, methods, and cost
3. How can we improve bibliographic/metadata quality (*JCDL*, Lagoze, 2006, Mitchell, 2006, Paytner, et al 2005)
4. Interoperability
  - What may be the limits on our goal to achieve interoperability?

# Conclusions

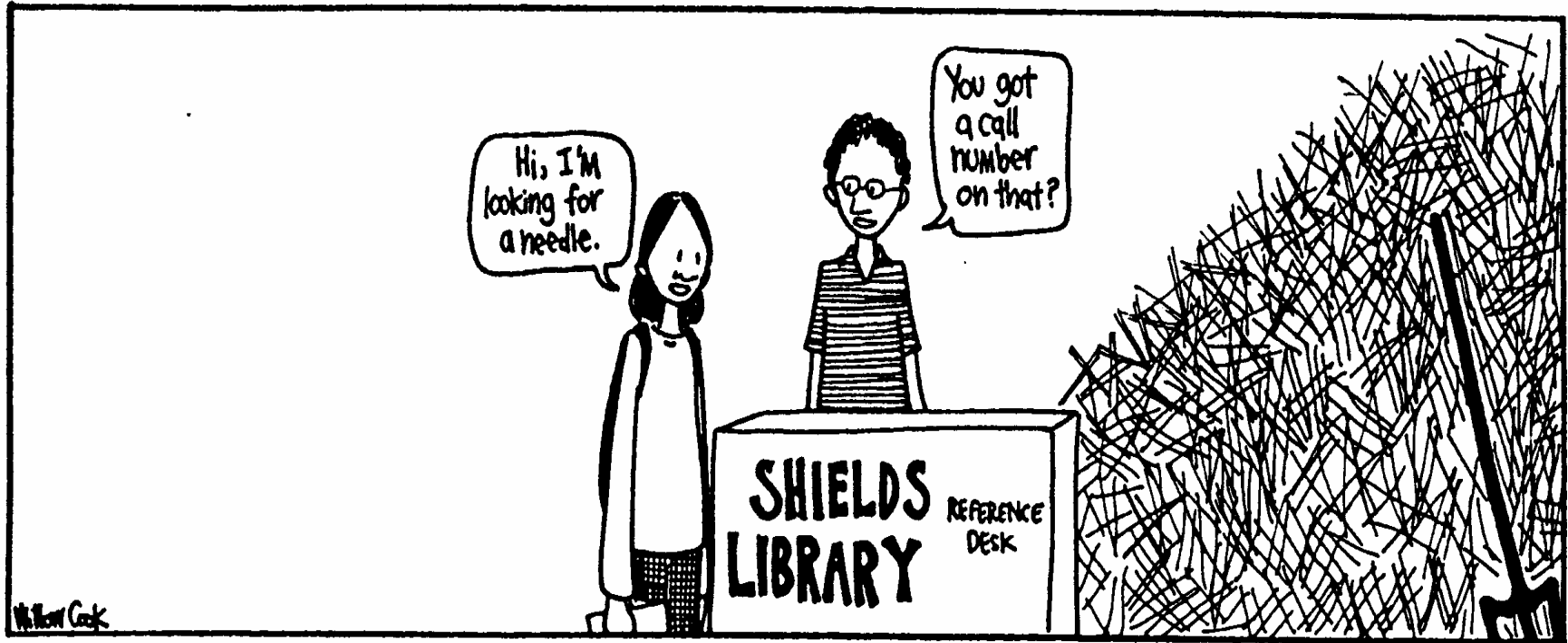
- Bibliographic universe changing
  - ▲ World of Information Output
- Positive attitude
  - ▲ Exciting time
  - ▲ Conceptualize the research questions
- Balance in our approach



# Thank you!

## Stampede

By Willow Cook



UC DAVIS MAGAZINE / Spring 1996

5

Jane Greenberg, [janeg@ils.unc.edu](mailto:janeg@ils.unc.edu)



SCHOOL OF INFORMATION  
AND LIBRARY SCIENCE

Metadata Research Center <MRC>